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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,200	12/21/2001	Juanita Mercure	41836.00055USD1	8312

24238 7590 09/02/2003

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EXAMINER

ROSSI, JESSICA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No. 10/038,200	Applicant(s) MERCURE ET AL.	
	Examin r Jessica L. Rossi	Art Unit 1733	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the c rrespondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/26/02, PreAmend. A.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A (appears to be claims 1-14; see Figure 2), drawn to making a shrink wrap comprising providing a thermoplastic sheet and shrink film, placing a reinforcing grid on the thermoplastic sheet, and forming a tie layer between the thermoplastic sheet and shrink film such that the tie layer holds the reinforcing grid.

Species B (appears to be claims 15-23, see Figure 4), drawn to making a shrink wrap comprising providing at least three thermoplastic layers, wherein at least one of the layers is a shrink film, and laminating at least two tie layers alternatively disposed between the thermoplastic layers, wherein each tie layer holds a reinforcing grid.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Mr. Bai on 8/26/03 a provisional election was made with traverse to prosecute the invention of Species A, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. *Please note that rejoinder of Species will be considered upon the discovery of allowable subject matter, depending on the basis thereof.*

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they

must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 25-52 have been renumbered as 1-23.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 10, it is unclear if the thermoplastic sheet and shrink film together are from 0.75-6 mils thick or if each layer alone has a thickness within this range. Applicants are asked to clarify. Based on the present specification, it is the former and therefore Applicants should amend accordingly.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

9. Claims 1, 3-4, 7-11, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Wynne et al. (US 5328743; provided in IDS).

With respect to claim 1, Wynne is directed to making a reinforced shrink wrap 10 that can be used for packaging (Figure 1; column 5, lines 35-36). The reference teaches providing a thermoplastic sheet 18b (column 2, lines 48-51 and 54-56; column 4, lines 16-17), providing a shrink film 12 (column 2, lines 22-25; column 3, lines 35-36), coating both the thermoplastic

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sheet and shrink film with an adhesive (column 3, lines 5-13), placing a reinforcing grid 16b on the coated thermoplastic sheet (column 3, lines 5-13; column 4, lines 9-16; column 2, lines 31-40), and laminating the thermoplastic sheet and shrink film such that the a tie layer 14b having the grid embedded therein is formed between the sheet and film (Figure 1; column 3, lines 5-13).

The reference teaches the adhesive tie layer is preferably a flexible, acrylic-based adhesive (column 4, lines 9-11), which the examiner has equated to be elastomeric; it being noted that the present specification teaches the elastomeric tie layer can be methyl acrylate (p. 8, lines 18-20).

Regarding claims 3-4, the reference teaches the shrink film being highly irradiated polyethylene (column 3, lines 35-36).

Regarding claim 7, the adhesive tie layer will inherently have a lower modulus than the thermoplastic sheet and shrink film since the adhesive is not used in an amount the retards movement of the grid and because the grid sags to prevent tearing (column 2, lines 37-40).

Regarding claim 8, the reference teaches the thermoplastic sheet including multiple plies (column 2, lines 54-55; column 5, lines 10-11).

Regarding claim 9, the reference teaches the tie layer can be 0.75-1 mils (column 2, lines 33-35), which is consistent with that portion of the claimed range.

Regarding claim 10, the reference teaches the thermoplastic sheet and shrink film being from about 0.75-6 mils thick (column 2, lines 24-25 and 48-49).

Regarding claims 11 and 13, the reference teaches the thermoplastic sheet and shrink film including additives such as ultraviolet stabilizers, flame retardants, static inhibitors etc. (column 3, lines 16-20 and 25-27).

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Regarding claim 14, the reference teaches the shrink film being LLDPE, LDPE, or mixtures thereof (column 2, lines 22-24).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-4 and 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wynne et al. '743 in view of Ikeda et al. (US 6214476) and Wynne et al. (US 5773373; provided in IDS), or alternatively, Ikeda in view of Wynne '743 and Wynne '373.

With respect to claim 1, it is noted the examiner interpreted the Wynne '743 reference to mean that the adhesive tie layer was elastomeric. If it is not taken as so, it would have been obvious to form/extrude an elastomeric adhesive tie layer that is acrylic based between the shrink film and thermoplastic sheet of Wynne '743 for laminating the same because such is known in the shrink wrap packaging art, as taught by Ikeda (teaches extruding elastomeric adhesive tie layer A between an oriented film (= shrink film) and a thermoplastic layer B; column 1, lines 8-9 and 14; column 4, lines 13-36; column 7, lines 39-48; column 8, lines 51-53; column 11, lines 51-56; column 12, lines 45-50), wherein the adhesive provides a laminate having good mechanical strength and shrinkability (column 1, lines 8-15); especially in light of the fact that it is known to extrude an elastomeric tie layer between thermoplastic layers, wherein one of the thermoplastic layers has a reinforcing grid thereon, such that the grid becomes embedded within

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the tie layer, as taught by Wynne '373 (Figures 1-2; column 4, lines 11-12; column 6, lines 9-10).

Alternatively, it would have been obvious to place a reinforcing grid on the thermoplastic sheet of Ikeda before extruding the elastomeric adhesive tie layer between it and the shrink film because it is known in the art to have a reinforcing grid embedded within an adhesive tie layer that is sandwiched between a shrink film and thermoplastic sheet, as taught by Wynne '743 (see above), wherein the grid would minimize and contain tears, rips and prevent punctures from spreading (Wynne '743; column 1, lines 35-37).

Regarding claim 2, Ikeda teaches applying the adhesive tie layer by extrusion coating (column 12, lines 45-50), wherein this eliminates the need for separate coating and laminating steps thereby expediting the manufacturing process. It is noted the present invention can extrude the elastomeric tie layer without affecting the shrink film because the thickness of the tie layer is maintained within the claimed range (p. 5, lines 25-28) – a range that is consistent with that taught by Wynne '743 (see paragraph 9 above).

Regarding claims 3-4, Ikeda teaches the shrink film being a polyethylene (column 11, lines 55-62) but it silent as to it being highly irradiated. It would have been obvious to highly irradiate the shrink film of Ikeda because such is known in the art, as taught by Wynne '743 (see paragraph 9 above), wherein this improves the properties of the shrink film.

Regarding claim 7, it would have been obvious for the tie layer of Ikeda to have a lower modulus than the thermoplastic sheet or shrink film because such is known in the art, as taught by Wynne '743 (see paragraph 9 above), wherein this allows the grid to sag and prevent further tearing.

Regarding claim 8, it would have been obvious to use multiple plies for the thermoplastic sheet of Ikeda because such is known in the art, as taught by Wynne '743 (see paragraph 9 above), wherein this would increase the strength of the laminate.

Regarding claim 9, as for the portion of the claimed range from 1-1.5 mils, it would have been obvious to use a tie layer having a thickness within this range for the tie layer of Wynne '743 because the prior art range is close enough that the skilled artisan would have expected the tie layer to have the same effect on the laminate.

Alternatively, it would have been obvious to use a tie layer having a thickness within the claimed range for the tie layer of Ikeda because such is known, as taught by Wynne '743.

Regarding claim 10, it would have been obvious to use a shrink film and thermoplastic sheet having a thickness within the claimed range for that of Ikeda because such is known, as taught by Wynne '743.

Regarding claim 11 and 13, Ikeda teaches the thermoplastic sheet having antistatic agents and pigments (column 11, lines 12-15).

Regarding claim 12, both Wynne '743 and Ikeda are silent as to the tie layer having additives. It would have been obvious to include additives within the tie layers of both because such is known, as taught by Wynne '373 (column 5, lines 64-66), wherein this imparts desirable characteristics to the same.

Regarding claim 14, Ikeda teaches the shrink film can be polyethylene but is silent as to it being LLDPE, LDPE, or mixtures thereof. It would have been obvious to use these types of PE for the shrink film of Ikeda because such is known in the art, as taught by Wynne '743 (see paragraph 9 above), wherein such shrink films provide a quality product.

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12. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynne et al. '743, Ikeda et al., and Wynne et al. '373, or alternatively Ikeda, Wynne '743 and Wynne '373 as applied to claim 1 above, and further in view of Hendrickson (US 4087577).

Regarding claim 5, Wynne '743 teaches the grid being a nonwoven filament grid (column 4, lines 14-16) but is silent as to it being a scrim. It would have been obvious to the skilled artisan at the time the invention was made to use a nonwoven scrim because such is known as a reinforcement for heat-shrinkable thermoplastic films, as taught by Hendrickson (Figure 2; column 5, lines 16-21).

Conclusion


13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 3,620,898 to Harris et al. – teaches extruding an elastomeric tie layer between a thermoplastic foam sheet and a polyethylene shrink film to form packaging materials (Figure 1; column 1, lines 60-68; column 2, lines 12-13 and 18-22 and 43).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700

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Jessica L. Rossi
Patent Examiner
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A handwritten signature in black ink, appearing to be 'JLR' or similar, written in a cursive style.

jlr